COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Omega Protein, Inc.
Reedville, Virginia
Permit No. PRO-40278

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Omega Protein, Inc. has applied for a Title V Operating Permit for its Reedville facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:_____ Date: _____

Air Permit Manager:_____ Date:_____

Deputy Regional Director:_____ Date:_____

FACILITY INFORMATION

Permittee
Omega Protein, Inc.
P.O. Box 175
Reedville, Virginia 22539

Facility
Omega Protein, Inc.
P.O. Box 175
Reedville, Virginia 22539

County-Plant Identification Number: 133-0011

SOURCE DESCRIPTION

NAICS Code: 31171 – Seafood Product Preparation and Packaging. Menhaden fish are conveyed from holding bins to indirect steam-heated cookers which break down the fat cells and coagulates the protein of the fish. The cooked fish pulp goes through a series of hydraulic screw presses where the oil-water emulsion (press liquor) is separated from the cooked fish. The residual solids (fish scrap) are conveyed to indirect steam dryers and then flame dryers. The dried fish is cooled and conveyed to a hammer mill for grinding then treated and cured and sold as fish meal. The press liquor passes through centrifugal decanters to remove suspended fines. The press liquor is heated and pumped to a bank of centrifugal separators which separate oil from the water (stickwater). The oil is then fed through a series of polisher centrifuges where the remaining fines and moisture are removed. This oil goes through a refining process where it is bleached, hydrogenised and deodorized, then stored in ground storage tanks prior to sale. The stickwater is fed to a series of evaporators where the solids are concentrated to 50%. These condensed fish solubles are either fed back onto the fish scrap prior to steam drying or prepared for sale as solubles.

The facility is a Title V major source of SO2. This source is located in an attainment area for all pollutants and is not subject to PSD. The facility was previously permitted under two Minor NSR Permits issued on 6/26/02 and 7/16/04.

COMPLIANCE STATUS

A Full Compliance Evaluation (FCE) of the Omega Protein plant was last conducted on September 30, 2005. At that time, it was determined that the facility was in compliance with schedule. Previously, regional water compliance staff issued a Notice of Violation (NOV) in 2005 and subsequent Consent Order (CO) to Omega Protein for a prior cyanide excursion at the plant's water discharge point for the spent scrubber water. As a result, Omega Protein agreed to perform stack testing to determine the concentration of cyanide (CN) compounds being emitted to the atmosphere. This stack testing was conducted on November 15, 2005 and was observed

by regional air compliance staff. From the stack test results, it was determined that the highest concentration of hydrogen cyanide (HCN) emitted during the three stack test runs (0.961 lb/hr) exceeded the hourly toxics exemption rate for cyanide compounds (0.36 lb/hr) as calculated via 9 VAC 5-60-300(C)(1)(a). Therefore, the SCREEN3 air model program was used to determine whether the hourly Significant Ambient Air Concentration (SACC) level for HCN was exceeded. Based upon the data from the stack test, modeling results demonstrated that the HCN emitted was within SACC levels. However, for Title V permitting and monitoring purposes, the highest HCN concentration emitted during the stack testing should be extrapolated to correspond to the maximum number of fish dried per hour (300,000) as indicated in the Title V air permit application dated January 30, 1998. This extrapolation is as follows:

256, 750 fish dried per hour per stack test run
0.961 lb(HCN)/hr-Highest HCN concentration during 3 stack test runs
0.961 lb(HCN)/hr x hr/256,750 fish dried = 3.74 x 10^{-6} lb(HCN)/fish dried
3.74 x 10-6 lb(HCN)/fish dried x 300,000 maximum fish dried/hr = 1.12 lb(HCN)/hr

The SACC level for HCN is calculated using the formula listed in 9 VAC 5-60-320(1) and the listed TLV-C value of 11 mg/m^3 in the 1991-1992 ACGIH Handbook. The maximum Predicted Ambient Air Concentration level of **4.747** ug/m^3 is below the calculated SACC level of **275** ug/m^3. Thus, the extrapolated maximum HCN hourly emission rate is in compliance with the SACC. Details regarding the monitoring for the HCN emissions are provided in the **Periodic Monitoring/Recordkeeping and Testing Sections**. In addition, the facility will be inspected in those years ending in odd numbers (ex. 2007, 2009, 2011, etc…). *Please note that Attachment A lists the SCREEN3 air model results based on the maximum number of fish dried per hour at the facility and the extrapolated maximum hourly HCN value.*

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following :

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
BW1	ST2	Babcock & Wilcox Boiler, 1975	112.0 MMBtu/hr				6/26/02
BW2	ST3	Babcock & Wilcox Boiler, 1975	112.0 MMBtu/hr				6/26/02
CB2	ST5	Cleaver Brooks, 1988	12.7 MMBtu/hr				7/16/04
CB3	ST4	Cleaver Brooks Model CB-100-500-250ST, 2004	20.9 MMBtu/hr				7/16/04
NUK/ (CB4)		GTS Energy NUK800 propane boiler	4.7 MMBtu/hr				7/16/04
1R	Vent Stack 1	Hauck Powerstar Model 5JP1360F fish meal flame dryer, 1995 (This is also processing piece of equipment so have listed in processing section as well)	75.6 MMBtu/hr 165,000 fish/hr	Cyclone Scrubber	1R-C1 1R-C2 1R-S1 1R-S2	PM/PM-10 PM/PM-10	6/26/02
5	Vent Stack 1	Renneburg Burner fish meal flame dryer, pre-1972	40 MMBTU/hr 110,000 fish/hr	Cyclone Scrubber	5-C1 5-C2 5-S1 5-S2	PM/PM-10 PM/PM-10	None Pre-1972

Process A							
S1	Vent Stack 1	TST 150 Steam Dryer	15,000 lb/hr steam 137,500 fish/hr				6/26/02
S2	Vent Stack 1	TST 150 Steam Dryer	15,000 lb/hr steam 137,500 fish/hr				6/26/02
S3	Vent Stack 1	TST 200 Steam Dryer	20,000 lb/hr steam 137,500 fish/hr				6/26/02
1R	Vent Stack 1	Hauck Powerstar Model 5JP1360F fish meal flame dryer, 1995 (This is also fuel burning piece of equipment so have listed in fuel burning section as well)	75.6 MMBtu/hr 165,000 fish/hr	Cyclone Scrubber	1R-C1 1R-C2 1R-S1 1R-S2	PM/PM-10 PM/PM-10	6/26/02
MC1	Vent Stack 1	Fish Meal Cooler	24.2 tons/hr fish 275,000 fish/hr	Cyclone Scrubber	MC1-S1 MC1-S2	PM/PM-10	6/26/02

Following revisions made to table based upon Public Notice comments received from Omega on 11/16/06: Stack ID changed to Vent Stack 1 from 1RS, Emission Unit ID changed from 5R to 5, Heat Input Rating for Unit 5 inserted and lb(steam)/hr rating deleted.

DEQ- PRO inserted hourly fish processing rate for units 5, 1R, MC1, S1, S2, and S3 based upon

data listed in minor NSR application dated 11/19/01.

EMISSIONS INVENTORY

A copy of the 2005 annual emission update is attached. Emissions are summarized in the following tables.

2005 Actual Emissions

	2005 Criteria Pollutant Emission in Tons/Year				
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
Boilers	0.27	4.72	277.31	25.98	43.08
Dryers	4.12	1.47	44.30	24.46	16.25
Total	4.39	6.19	321.61	50.44	59.33

2005 Facility Hazardous Air Pollutant Emissions

Pollutant	2005 Hazardous Air Pollutant Emission in Tons/Yr
PB	1.4×10^{-3}
NH3	7.5×10^{-1}

EMISSION UNIT APPLICABLE REQUIREMENTS
Fuel Burning Equipment– BW1, BW2, CB2, CB3, NUK, 1R & 5

The source has emission unit specific applicable requirements for two main types of equipment: fuel burning (ID#'s BW1, BW2, CB2, CB3, NUK/CB4, 1R, and 5) and processing (ID#'s S1, S2, S3, 1R, and MC1). However, the emission units applicable requirements overlap due to the fact that emissions units S1, S2, S3, 1R, 5, and MC1 exhaust to a common stack, Vent Stack 1, and share a facility maximum hourly processing rate of 300,000 fish drying/hr. Case in point would be the opacity requirements for Vent Stack 1 which normally would be listed in the Processing Area section but have been listed in the fuel burning section due to units 1R and 5 venting to it. Also, while reviewing the facility's Public Notice comments regarding the draft Title V permit, it was determined that emission units 1R and 5 are not subject to the fuel burning requirements listed in Rule 4-8 for PM and SO2. The units do not meet the definition of fuel burning equipment as given in Rule 4-8. Therefore, several applicable requirements listed in the draft Title V permit to units 1R and 5 had to be deleted for this final Title V permit version. However, the applicable Rule 4-4 requirements for units 1R and 5 have been inserted in this final Title V permit version,

but may appear in the Processing Area applicable requirements section rather than the Fuel Burning applicable requirements section due to Rule 4-4 being for processing units.

The sources of applicable requirements for fuel burning equipment BW1, BW2, CB2, CB3, NUK/CB4, 1R and 5 are as follows:

BW1, BW2, and 1R – June 26, 2002 Modified Minor NSR Permit (superseded April 21, 1999 Modified Minor NSR Permit); 9 VAC 5 Chapter 40-Part II-Article 8 Existing Stationary Sources Emission Standards for Fuel Burning Equipment (Rule 4-8) *Only applies to BW1 and BW2. 1R does not meet definition of fuel burning equipment listed in Rule 4-8*; 9 VAC 5 Chapter 40-Part II-Article 4 Existing Stationary Sources Emission Standards for General Process Operations (Rule 4-4) *Only applies to 1R. The PM emission standard is applicable to units 1R, 5, S1, S2, S3, and MC1 together because all the units are limited to a combined facility wide maximum of 300,000 fish drying/hr*;9 VAC 5 Chapter 50-Part II-Article 1 New and Modified Stationary Sources Standards of Performance for Visible Emissions and Fugitive Dust/Emissions (Rule 5-1); and 9 VAC 5 Chapter 60-Part II-Article 5 Emission Standards for Toxic Pollutants from New and Modified Sources (Rule 6-5). *Please note that emission units BW1 and BW2 are not subject to NSPS Subpart D because each unit's heat input rate is less than the 250 MMBTU/hr applicability level. Emission Unit 1R is not subject to NSPS Subpart Dc because it is not a steam generating unit. MACT DDDDD (Boiler MACT) is not applicable to emission units BW1 or BW2 because the facility is not a major stationary source for HAPS.*

CB2, CB3, and NUK/CB4 – July 16, 2004 Modified Minor NSR Permit; 9 VAC 5 Chapter 40-Part II-Article 4 Existing Stationary Sources Emission Standards for General Process Operations (Rule 4-4) *Only CB2*; 9 VAC 5 Chapter 50-Part II-Article 1 New and Modified Stationary Sources Standards of Performance for Visible Emissions and Fugitive Dust/Emissions (Rule 5-1); and 9 VAC 5 Chapter 60-Part II-Article 5 Emission Standards for Toxic Pollutants from New and Modified Sources (Rule 6-5); 40 CFR 60 Subpart Dc (Emission Unit CB3 only). *Please note that emission unit CB2 is not subject to NSPS Subpart Dc because the unit was constructed in 1988 which is prior than the applicability date of June 9, 1989. It is also not subject to NSPS D, Da, or Db because it is not an electric utility steam generating unit nor does it have a heat input rate exceeding 250 MMBTU/hr. MACT DDDDD (Boiler MACT) is not applicable to emission units BW1 or BW2 because the facility is not a major stationary source for HAPs. CB2 and CB3 are not subject to Rule 4-8 because they do not meet the fuel burning equipment installation definition since they have been in operation after October 5, 1979. CB2 is subject to the SO2 emission standard in Rule 4-4 but is not subject to the particulate standard since according to the process weight definition, liquid fuel is not counted in process weight. CB3 is not subject to Rule 4-4 since it is subject to more restrictive standards in NSPS Subpart Dc. The NUK/CB4 is exempt from Rule 4-8 due to its size.*

5 -9 VAC 5 Chapter 40-Part II-Article 4 Existing Stationary Sources Emission Standards for General Process Operations (Rule 4-4) *The PM emission standard is applicable to units 1R, 5, S1, S2, S3, and MC1 together because all the units are limited to a combined facility wide maximum capacity of 300,000 fish drying/hr*;9 VAC 5 Chapter 50-Part II-Article 1 New and Modified Stationary Sources Standards of Performance for Visible Emissions and Fugitive Dust/Emissions (Rule 5-1) *Even though unit 5 is an existing source (pre-1972), it will be subject*

to the stricter 20%/30% opacity standard because its emissions exhaust to Vent Stack 1 which has this opacity standard as an underlying minor NSR permit condition; and 9 VAC 5 Chapter 60-Part II-Article 4 Emission Standards for Toxic Pollutants from Existing Sources (Rule 6-4)

The facility is not subject to 9 VAC 5-80-1700, Prevention of Significant Deterioration Areas (PSD) because the facility had existing emissions exceeding the PSD levels prior to PSD rules implementation. In subsequent permitting actions, Omega Protein has agreed to permit restrictions limiting the fuel throughput to BW1, BW2, and 1R so that the net emissions increases are below significance levels for PSD applicability.

Please see Attachments B and C for explanation regarding changes from the draft Title V permit to the final Title V permit. The changes are in response to comments submitted by Omega during the Public Notice comment period (Attachment B) and a meeting held between Omega and Piedmont Regional Office on December 11, 2006 to further discuss the facility's concerns regarding the final Title V permit (Attachment C).

A. **BW1, BW2, and 1R Applicable Requirements** – the source of the requirement appears in parentheses after the requirement (along with the Title V regulatory reference)

1. Particulate matter emissions (PM) from the fish meal flame dryer (1R) shall be controlled by the use of cyclones and scrubbers.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

2. The approved fuels for the fish meal flame dryer (1R) and the two B&W boilers (BW1 & BW2) are distillate oil and residual oil.

    a. Distillate oil is defined as fuel oil (including diesel oil) that complies with the specifications for fuel numbers 1 or 2 as defined by the current American Society for Testing and Materials method. This definition does <u>not</u> include number 4 oil nor does it include waste oil. Although diesel oil has its own ASTM specification, numbers 1 and 2 diesel oil also meet the specifications for numbers 1 and 2 fuel oil and should be considered as such.

    b. Residual oil is defined as fuel oil that complies with the specifications for fuel numbers 4, 5, and 6 as defined by the current American Society for Testing and Materials method. This definition does <u>not</u> include used or waste oil. Although residual oil has its own ASTM specification, numbers 4, 5, and 6 residual oil also meet the specifications for numbers 4, 5, and 6 fuel oil and should be considered as such.

    A change in the fuels may require a permit to modify and operate.
    (9 VAC 5-80-110 and Condition 5 of 6/26/02 Permit)

5. The fish meal flame dryer (1R) shall consume no more than 1,500,000 gallons of any combination of distillate or residual oil per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 7 of 6/26/02 Permit)

8. The boilers (BW1 & BW2) and the fish meal flame dryer (1R), combined, shall consume no more than the following quantities of fuel, calculated monthly as the sum of each consecutive twelve (12) month period:

   a. 3,150,000 gallons of No. 6 fuel oil (with sulfur content greater than 0.5 weight percent and less than or equal to 2.0 weight percent) per year; or,

   b. 5,812,300 gallons of No. 6 fuel oil or No. 2 fuel oil (with sulfur content less than or equal to 0.5 weight percent) per year; or,

   c. Any combination of the approved fuels specified in this permit, such that the following are satisfied per year:

$$[[Y_{2.0}(157.6 \times 2.0) + Y_{0.5}(157.6 \times 0.5)]/(2 \times 10^6)] \leq 498.6 \text{ tons/yr}$$

and

$$Y_{2.0} + Y_{0.5} \leq 5{,}812{,}300 \text{ gallons}$$

Where,

* $Y_{2.0}$ is the number of gallons of fuel oil with sulfur content greater than 0.5 weight percent and less than or equal to 2.0 weight percent consumed in each consecutive twelve month period.

* $Y_{0.5}$ is the number of gallons of fuel oil with sulfur content equal to or less than 0.5 weight percent consumed in each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Conditions 6 and 8 of 6/26/02 Permit)

12. Visible Emissions from each of the five boilers' (BW1, BW2, CB2, CB3, and NUK/CB4) stacks and Vent Stack 1 (as exhausted to by emission units 1R, 5, S1, S2, S3, and MC1) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 14 of 6/26/02 Permit)

13. Boiler and fish meal flame dryer emissions shall be controlled by proper operation and maintenance. Boiler and fish meal flame dryer operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. (9 VAC 5-80-110)

14. Reactivation of any of the five fish meal flame dryers (Ref. D-E01 through D-E05) or any of the seven boilers (Ref. B-E01 through B-E07) may require a permit. (9 VAC 5-80-110 and Condition 4 of 6/26/06 Permit)

15. The two B&W boilers (BW1 & BW2) are limited to a particulate matter standard $E=1.0906H^{-0.2594}$ $=1.0906* 224^{-0.2594}= 0.26792$ lb(particulate)/MMBTU,where

    E = The maximum allowable emission ratio in pounds of particulate per million Btu input; and
    H = The total capacity of the fuel burning equipment installations in terms of million Btu per hour (BW1 + BW2 = 224 MMBTU/hr)
    (9 VAC 5-80-110 and 9 VAC 5-40-900 A.1.b)

16. The B&W boiler (BW1) shall be limited to a particulate matter rate of 0.26792 lb (particulate)/MMBTU * 112.0 MMBTU/hr = 30.0 lb(particulate)/hr. (9 VAC 5-80-110 and 9 VAC 5-40-900 B.1)

17. The B&W boiler (BW2) shall be limited to a particulate matter rate of 0.26792 lb (particulate)/MMBTU * 112.0 MMBTU/hr = 30.0 lb(particulate)/hr. (9 VAC 5-80-110 and 9 VAC 5-40-900 B.1)

18. The B&W boiler (BW1) shall be limited to a sulfur dioxide rate of 2.64 * 112.0 MMBTU/hr = 295.7 lb(sulfur dioxide)/hr. (9 VAC 5-80-110 and 9 VAC 5-40-930 A.1)

19. The B&W boiler (BW2) shall be limited to a sulfur dioxide rate of 2.64 * 112.0 MMBTU/hr = 295.7 lb(sulfur dioxide)/hr. (9 VAC 5-80-110 and 9 VAC 5-40-930 A.1)

CB2, CB3, and NUK/CB4 Applicable Requirements – the source of the requirement appears in parentheses after the requirement (along with the Title V regulatory reference)

3. The approved fuel for the two Cleaver Brooks Boilers (CB2 & CB3) is distillate oil. A change in the fuels may require a permit to modify and operate. (9 VAC 5-80-110 and Condition 3 of 7/16/04 Permit)

4. The maximum sulfur content of the oil to be burned in the Cleaver Brooks boiler (CB3) shall not exceed 0.3 percent by weight per shipment. (9 VAC 5-50-410, 9 VAC 5-80-110, Condition 5 of 7/16/04 permit, and 40 CFR 60.42c(d).)

6. The Cleaver Brooks oil fired boiler (CB-3) shall consume no more than 480,000 gallons of No.2 fuel oil per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 3 of 7/16/04 Permit)

7. The GTS Energy NUK propane-fired boiler (NUK or CB-4) shall consume no more than 100,000 gallons of propane per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 4 of 7/16/04 Permit)

9. Emissions from the operation of the Cleaver Brooks oil-fired boiler (CB3) shall not exceed the limits specified below:

Total Suspended Particulate	0.3 lbs/hr	0.5 tons/yr
PM-10	0.2 lbs/hr	0.3 tons/yr
Sulfur Dioxide	6.4 lbs/hr	10.3 tons/yr
Nitrogen Oxides (as NO2)	3.0 lbs/hr	4.9 tons/yr
Carbon Monoxide	0.8 lbs/hr	1.2 tons/yr

(9 VAC 5-80-110 and Condition 6 of 7/16/04 Permit)

10. Emissions from the operation of the GTS Energy NUK propane-fired boiler (NUK/CB4) shall not exceed the limits specified below:

Nitrogen Oxides (as NO2)	1.0 lbs/hr	1.0 tons/yr

(9 VAC 5-80-110 and Condition 7 of 7/16/04 Permit)

11. To avoid the applicability of 9 VAC 5-80-1700, Permits-Major Stationary Sources and Major Modifications Locating in Prevention of Significant Deterioration Areas, the permitted facility shall not exceed from the combined operation of boilers (BW1 & BW2) and the fish meal flame dryer (1R) the limits specified below:

Sulfur Dioxide	498.6 tons/yr
PM-10	38.3 tons/yr

(9 VAC 5-80-110 and Condition 13 of 6/26/02 Permit)

20. The Cleaver Brooks boiler (CB2) shall be limited to a sulfur dioxide rate of 2.64 * 12.7 MMBTU/hr = 33.5 lb(sulfur dioxide)/hr.
(9 VAC 5-80-110 and 9 VAC 5-40-280 B.1.a.)

21. The Cleaver Brooks boiler (CB3) is subject to the requirements of 40 CFR Part 60 Subpart Dc, except where more restrictive within this permit.
(9 VAC 5-80-110 and 9 VAC 5-50-410)

5 Applicable Requirements – the source of the requirement appears in parentheses after the requirement (along with the Title V regulatory reference)

5 is a grandfathered piece of equipment and not subject to NSR permitting. However, it is still subject to existing source rules in (Rule 4-4) for PM (see Process Requirements – Condition 6) and SO_2 and the stricter opacity standard for Vent Stack 1 (see Fuel Burning Applicable Requirements - Condition 12) since it exhausts to it.

Listed in Process Area Applicability Requirements
(Condition IV. A. 7 in final Title V permit)

The fish meal flame dryer (5) shall be limited to a sulfur dioxide rate of 2.64* 40 MMBTU/hr = lb(sulfur dioxide)/hr.
(9 VAC 5-80-110 and 9 VAC 5-40-280 B.1.a)

B. **Periodic Monitoring/Recordkeeping**

The EPA periodic monitoring guidance, dated September 18, 1998, indicates on page 4 that periodic monitoring is required for each emission point at a source, subject to Title V of the Act, that is subject to an applicable requirement. With respect to these requirements, periodic monitoring is required for the following: the scrubbers and cyclones controlling particulate matter emissions from the fish meal flame dryer (1R) and the PM and SO_2 emissions from the units BW1, BW2, and 1R.

Periodic monitoring for the scrubbers and cyclones consists of regular equipment inspections and a log of flow meter observations and corrective actions taken if the parameters are not within those established during the performance tests section. Periodic monitoring for the fuel burning sources consists of fuel supplier certifications to demonstrate compliance with sulfur limits, AP-42 emission factors, each unit's heat input rating, and good operating practices. The opacity requirement for all sources will be monitored by having an opacity observation schedule. This schedule has been based upon the fuel type used by the emission units. For instance, since BW1 and BW2 boilers

can burn residual fuel oil, then their observation schedule should be on a more frequent basis, such as the required weekly observation. On the other hand, since CB2 and CB3 boilers burn only distillate fuel oil, then their observation schedule can be reduced to monthly. Also, since Vent Stack 1 has several emission units venting to it, then the opacity standard and observation requirement is for the stack rather than the individual units. And, since flame dryers 1R and 5 can burn residual fuel oil, then the observation schedule is on the more frequent weekly basis. Also, since the NUK/CB4 boiler is limited to using propane only, there is no required observation schedule for it. Recordkeeping requirements also serve as periodic monitoring requirements and have been included in this section. *NOTE: The performance tests mentioned in this section are part of the periodic monitoring plan for this facility, but have been listed in Part C of this section because it was thought to be the more appropriate area. The test monitoring plan is described in more detail in Part C as well.*

The periodic monitoring requirements for fuel burning equipment BW1, BW2, CB2, CB3, NUK/CB4, and 1R are as follows:

1. Cyclones: The cyclones required by Condition III A. 1 shall be provided with adequate access for inspection. An annual internal inspection shall be conducted on the cyclones by the permittee to insure structural integrity.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

2. Scrubbers: The scrubbers required by Condition III. A. 1 shall be provided with adequate access for inspection. Each scrubber shall be equipped with a flow meter to continuously measure and indicate water flow rate. Each flow meter shall be installed in an accessible location and shall be maintained by the permittee such that each one is in proper working order at all times.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

3. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil or residual oil. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier.

    b. The date on which the oil was received.

    c. The volume of distillate oil delivered in the shipment.

d. For the distillate oil, a statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2.

e. For the residual oil, a statement that the oil complies with the American Society for Testing and Materials specification for fuel oil numbers 4, 5, and 6.

f. The sulfur content of the oil.

g. The method used to determine the sulfur content of the oil.

h. Documentation of sampling of the oil indicating the location of the oil when the sample was drawn.

(9 VAC 5-80-110, 9 VAC 5-50-410, Condition 5 of 7/16/04 Permit, Condition 6 of 6/26/02 Permit, and 40 CFR 60.48c(e)(11), and 40 CFR 60.48c(f)(1))

4. The permittee shall provide a certified statement signed by the owner or operator of the facility stating that records of the fuel supplier certifications submitted represent all of the fuel combusted for Cleaver Brooks boiler (CB3) during the reporting period.
(9 VAC 5-80-110, 9 VAC 5-50-410, and 40 CFR 60.48c(e)(11))

5. The permittee shall perform visual inspections for a brief time period weekly for emissions units BW1 and BW2 (Stack 2 and Stack 3, respectively) and Vent Stack 1 (as exhausted to by emission units S1, S2, S3, 1R, 5, and MC1) and shall perform visual inspections for a brief time period monthly for emission units CB2 and CB3 (Stack 5 and Stack 4, respectively) to determine if any of the above referenced stacks have normal visible emissions, except during weeks in which a 40 CFR Appendix A Method 9 visible emissions evaluation is performed on the respective unit(s)/stack(s). On each occasion that above-normal visible emissions are observed, the permittee shall conduct a Method 9 visible emissions evaluation on the stack(s) unless the visible emission condition(s) is/are corrected as expeditiously as possible. The permittee shall maintain records of the results of the weekly and monthly visible emissions inspections and details of any corrective actions taken as a result of these inspections.
(9 VAC 5-80-110)

6. The permittee shall observe the water flow rate required in Condition III. B. 2 with a frequency of not less than once per daily operation. The permittee shall keep a log of the observations and any corrective actions taken for the applicable monitored parameters established during performance testing required in Condition III C 2.

(9 VAC 5-80-110)

7. The permittee shall maintain records of all emission data and operating parameters

necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:

a. The annual consumption of fuel oil (expressed in gallons) by the fish meal flame dryer (1R), calculated monthly as the sum of each consecutive twelve (12) month period.

b. The combined annual consumption of fuel oil (expressed in gallons) by the fish meal flame dryer (1R) and the B&W boilers (BW1 & BW2), calculated monthly as the sum of each consecutive twelve (12) month period.

c. The annual consumption of fuel oil (expressed in gallons) by the 20.9 x 10^6 Cleaver-Brooks oil-fired boiler (CB3), calculated monthly as the sum of each consecutive twelve (12) month period.

d. The annual consumption of propane (expressed in gallons) by the 4.7 x 10^6 GTS Energy NUK 800 propane-fired boiler (NUK/CB-4), calculated monthly as the sum of each consecutive twelve (12) month period.

e. All fuel supplier certifications.

f. Records of the annual inspections conducted for the cyclones required by Condition III B. 1 which list the times, dates, results, and any corrective maintenance taken as a result of the inspections.

g. Records (logs) of the once per daily operation observations conducted on the water flow rate as required in Condition III B. 6 which list the times, dates, results, and any corrective actions taken as a result of these observations.

h. A maintenance schedule for emission units BW1, BW2, CB2, CB3, NUK/CB4, 1R and 5R as well as all scrubbers and cyclones required by Condition III A. 1.

i. Operator training records.

j. Written operating procedures for emission units BW1, BW2, CB2, CB3, NUK/CB4, 1R and 5R as well as all scrubbers and cyclones required in Condition III A. 1.

k. All records specified and required in 40 CFR 60 Subpart Dc including, but not limited to the following: construction and start-up notifications, all fuel supplier certifications, and **daily** fuel usage for each fuel type used by the Cleaver Brooks (CB-3) boiler.

l. The results of the weekly and monthly visible emission surveys as detailed and required by Condition III B. 5 and details of any corrective action(s)

taken as a result of these inspections.

m. Times and dates when any scrubber or cyclone required Condition III A. 1 was not in use or was inoperative while emission unit being controlled was operating.

n. All stack test results.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, Condition 5, 10, 15, and 16 of 7/16/04 Permit, Condition 16, 21, and 22 of 6/26/02 Permit, and 40 CFR 60.48c)

C. **Testing**

As part of the periodic monitoring plan for this facility, stack emission tests are being required to be performed once per permit term (i.e. once per every 5 years). These tests are being required (1) to confirm that the source is not exceeding the SO2 and PM (assuming all PM is PM10) emission limits which in turn limit the facility below PSD modification applicability levels, (2) to verify the emission factors for VOC and PM/PM10 developed in 1995 upon stack test data and amount of fish processed are still valid, and (3) to verify the control efficiency of the cyclone/scrubber control equipment can in fact achieve 95% control efficiency upon which the 1995 permit emission limits were initially based and carried over in subsequent permit revisions.

Also, please note that a caveat to testing has been inserted Conditions 3 and 4 due to comments received from Omega during the Public Notice comment period. Omega desired to have testing requirements removed because some units exhausted to a common stack and claim that individualized testing is not possible. However, it is believed that testing can be conducted by testing the header/ductwork from the emission unit as it connects into the common stack. The caveat has been inserted to negate the testing if Omega can supply documentation and have it approved 4 months before the stack test protocol is due that shows why it is physically impossible to conducting the testing as required.

1. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests for PM/PM10 and Sulfur Dioxide from each emission unit, BW1, BW2, and 1R, in order to determine compliance with the emission limits listed in Condition III A. 11. These tests shall take place within 18 months of initial issuance of this Title V permit, and the units BW1, BW2, and 1R shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition III C. 3 at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

   (9 VAC 5-80-110)

2. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests to verify control efficiency for the cyclones/scrubbers (PCD ID 1R-C1, 1R-C2, 1R-S1, and 1R-S2) which control particulate emissions from emission unit 1R. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition III C. 4 at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

   (9 VAC 5-80-110)

3. As part of each testing protocol required in Condition III C. 1, the permittee shall submit target operating rates for each piece equipment or operation being tested, including hourly fish processing/drying rates. The permittee shall also discuss in each testing protocol which fuels will be burned during each test to maximize emissions for those units that may burn different fuels and fuel oil sulfur content for each fuel. The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition III C. 1. Additionally, test reports shall contain documentation showing type and amount of fuel being used during the test, the fuel oil sulfur content, and the actual operating rate of each piece of equipment or operation being tested. In the test reports, the permittee shall compare this information to the targeted operating rates and fuels listed in each approved protocol. The testing requirement in Condition III C. 1 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date for the testing protocol.
   (9 VAC 5-80-110)

4. As part of each testing protocol required in Condition III C. 2, the permittee shall submit target operating rates for each piece of equipment or operation being tested which include hourly fish processing rates. In each testing protocol, the permittee shall also discuss how the PM/PM10 control efficiency for the cyclones/scrubbers as detailed in Condition III C. 2 will be derived. The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition III C. 2. Additionally, test reports shall contain documentation showing the actual operating rate of each piece of equipment or operation being tested, the amount of fish being processed for each test run, the PM/PM10 inlet concentration to the cyclones (PCD ID 1R-C1 and 1R-C2) and the PM/PM10 outlet concentration after exiting the scrubbers (PCD ID 1R-S1 and 1R-S2). In the test reports, the permittee shall compare this information to the targeted operating rates listed in each approved protocol. The testing requirement in Condition III C. 2 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional

Office 120 days prior to the required submittal date for the testing protocol. (9 VAC 5-80-110)

5. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

D. **Reporting/Notifications**

1. The permittee shall submit fuel quality reports pertaining to the Cleaver Brooks boiler (CB-3) to the Director, Piedmont Regional Office and to the EPA, Region III address detailed in Condition III D. 2 within 30 days after the end of each quarterly period. If no shipments of oil were received during the quarterly period, the quarterly report shall consist of the dates included in the quarterly period and a statement that no oil was received during the quarterly period. If distillate oil was received during the quarterly period, the reports shall include the following:

   a. Dates included in the quarterly period.

   b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the quarterly period or a quarterly summary from each fuel supplier that includes the information specified in Condition III B. 3 for each shipment of distillate oil.

   c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility for the Cleaver Brooks boiler (CB-3).

   (9 VAC 5-50-410, 9 VAC 5-80-110, 40 CFR 48c(e)(1), 40 CFR 48c(e)(11), and 40 CFR 48c(j))

2. The permittee shall furnish written notification to the Director, Piedmont Region of:

   a. The anticipated start-up date of the Cleaver Brooks oil-fired boiler (Reference No. 3 CB 3)(NSPS) postmarked not more than 60 days nor less than 30 days prior to such date.

   b. The actual start-up date of the Cleaver Brooks oil- fired boiler (Reference No. CB 3)(NSPS) within 15 days after such date.

   c. The design heat input capacity of the Cleaver Brooks oil-fired boiler (Reference No. CB 3)(NSPS) and the identification of fuels to be combusted in it.

Copies of the written notification reference in items a-c above shall be sent to:

Chief, Air Enforcement Branch (3AP10)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-50-50, 9 VAC 5-50-410, 40 CFR 60.48c(a), 40 CFR 60.48c(a)(1), and Condition 9 of 07/16/04 Permit)

Note: Condition 2 has been revised from the draft version submitted to EPA Region III on Nov. 22nd, 2006. Based upon comments submitted by Omega after the draft permit submittal (December 1, 2006), PRO responded to the comments (see Attachment C) during a meeting with Omega on Dec. 11th, 2006 to discuss Omega's concerns with issuing the permit. The requirement to submit written notification on the CB3 boiler's construction date has been removed because PRO discovered a document in our database that was Omega's written notification regarding the construction date for the CB3 boiler (see Attachment C for details.) However, the remaining notifications have remained since those have not been submitted.

EMISSION UNIT APPLICABLE REQUIREMENTS
Process Equipment – S1, S2, S3, 1R & MC1

The source has emission unit specific applicable requirements for two main types of equipment: fuel burning (ID#'s BW1, BW2, CB2, CB3, NUK/CB4, 1R, and 5R) and processing (ID#'s S1, S2, S3, 1R, and MC1). However, the emission units applicable requirements overlap due to the fact that emissions units S1, S2, S3, 1R, 5, and MC1 exhaust to a common stack, Vent Stack 1, and share a facility maximum hourly processing rate of 300,000 fish drying/hr. Case in point would be the opacity requirements for Vent Stack 1 which normally would be listed in the Processing Area section but have been listed in the fuel burning section due to units 1R and 5 venting to it. Also, while reviewing the facility's Public Notice comments regarding the draft Title V permit, it was determined that emission units 1R and 5 are not subject to the fuel burning requirements listed in Rule 4-8 for PM and SO2. The units do not meet the definition of fuel burning equipment as given in Rule 4-8. Therefore, several applicable requirements listed in the draft Title V permit to units 1R and 5 had to be deleted for this final Title V permit version. However, the applicable Rule 4-4 requirements for units 1R and 5 have been inserted in this final Title V permit version, but may appear in the Processing Area applicable requirements section rather than the Fuel Burning applicable requirements section due to Rule 4-4 being for processing units.

The sources of applicable requirements for processing equipment S1, S2, S3, 1R, and MC1 are as follows:

S1, S2, S3, 1R, and MC1 – June 26, 2002 Modified Minor NSR Permit (superseded April 21, 1999 Modified Minor NSR Permit); 9 VAC 5 Chapter 40-Part II-Article 4 Existing Stationary Sources Emission Standards for General Process Operations (Rule 4-4) *(The VOC and NOx*

standards do not apply since the source is not within a VOC control area. Also, for the SO2 emission standards, S1, S2, S3, & MC1 are applicable to the noncombustion standard while 1R is subject to the combustion standard. The noncombustion standard for SO2, 2000 ppmv has not been included as an applicable requirement since the units S1, S2, S3, & MC1 do not produce or emit any SO2. The combustion standard of 199.6 lb/hr of SO2 for unit 1R will not be used since the combined SO2 permit condition emission limit of 166.5 lb/hr for S1, S2, S3, 1R, and MC1 is more stringent. The PM emission standard is applicable to units 1R, 5, S1, S2, S3, and MC1 together because all the units are limited to a combined facility wide maximum capacity of 300,000 fish drying/hr); 9 VAC 5 Chapter 50-Part II-Article 1 New and Modified Stationary Sources Standards of Performance for Visible Emissions and Fugitive Dust/Emissions (Rule 5-1); and 9 VAC 5 Chapter 60-Part II-Article 5 Emission Standards for Toxic Pollutants from New and Modified Sources (Rule 6-5). *Please note that Emission Unit 1R is not subject to NSPS Subpart Dc because it is not a steam generating unit. Rule 4-8 is not applicable to Emission Unit 1R. It does not meet definition of fuel burning equipment listed in Rule 4-8.*

A. **S1, S2, S3, 1R, and MC1 Applicable Requirements** – the source of the requirement appears in parentheses after the requirement (along with the Title V regulatory reference)

1. Particulate matter (PM) emissions from the fish meal cooler (MC1) shall be controlled by the use of cyclones and scrubbers. The cyclones and scrubbers shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

2. The annual fish meal throughput (based on number of fish) of the fish meal steam dryers (S1, S2, & S3) shall not exceed 950,000,000 fish per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 9 of 6/26/02 Permit)

3. The annual fish meal throughput (based on number of fish) of the fish meal flame dryer (1R) shall not exceed 570,000,000 fish per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 10 of 6/26/02 Permit)

4. The annual fish meal throughput of the fish meal cooler (MC1) shall not exceed 83,600 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 11 of 6/26/02 Permit)

5. Emissions from the combined operation of the fish meal steam dryers (S1, S2 & S3), the fish meal flame dryer (1R) and the fish meal cooler (MC1) shall not exceed the limits specified below:

Particulate Matter	0.41	lbs/ton fish	65.1 tons/yr

PM-10		0.41	lbs/ton fish	65.1 tons/yr
Sulfur Dioxide	2.22 lbs/10^6 Btu	166.5	lbs/hr	249.8 tons/yr
Nitrogen Oxides (as NO2)		33.8	lbs/hr	50.3 tons/yr
Carbon Monoxide		2.5	lbs/hr	3.8 tons/yr
Volatile Organic Compounds		0.27	lbs/ton fish	42.8 tons/yr
Formaldehyde		0.27 lb/hr		0.037 tons/yr

(9 VAC 5-80-110 and Condition 12 of 6/26/02 Permit)

6. The fish meal steam dryers (S1, S2 & S3), the fish meal flame dryer (1R), the fish meal flame dryer (5) and the fish meal cooler (MC1) shall be limited to a combined particulate matter rate of 51.3 lb/hr based upon a facility maximum capacity of 300,000 fish drying per hour and 667 lb(fish) per 1000 fish weight conversion factor.
(9 VAC 5-80-110 and 9 VAC 5-40-260 A)

7. The fish meal flame dryer (5) shall be limited to a sulfur dioxide rate of 2.64 * 40 MMBTU/hr = 105.6 lb(sulfur dioxide)/hr.
(9 VAC 5-80-110 and 9 VAC 5-40-280 B.1.a)

B. **Periodic Monitoring/Recordkeeping**

The EPA periodic monitoring guidance, dated September 18, 1998, indicates on page 4 that periodic monitoring is required for each emission point at a source, subject to Title V of the Act, that is subject to an applicable requirement. With respect to these requirements, periodic monitoring is required for the following: the scrubbers and cyclones controlling particulate matter emissions from the fish meal cooler (MC1), the PM and SO_2 emissions from the units S1, S2, S3, 1R, and MC1, and product throughputs.

Periodic monitoring for the scrubbers and cyclones consists of regular equipment inspections and a log of flow meter observations and corrective actions taken if the parameters are not within those established during the performance tests section. The opacity requirement for all sources will be monitored by having an opacity observation schedule. Please see the Fuel Burning Units Periodic Monitoring/Recordkeeping section for details on the opacity observation schedule since the opacity requirement for S1, S2, S3, and 1R have been listed in that section due to their exhausting to the common stack, Vent Stack 1. Recordkeeping requirements also serve as periodic monitoring requirements and have been included in this section. *NOTE: The performance tests mentioned in this section are part of the periodic monitoring plan for this facility, but have been listed in Part C of this section because it was thought to be the more appropriate area. The test monitoring plan is described in more detail in Part C as well.*

The periodic monitoring requirements for process units S1, S2, S3, 1R and MC1 are as follows:

1. Cyclones: The cyclones required by Condition IV. A. 1 shall be provided with adequate access for inspection. An annual internal inspection shall be conducted on the cyclones by the permittee to insure structural integrity.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

2. Scrubbers: The scrubbers required by Condition IV. A. 1 shall be provided with adequate access for inspection. Each scrubber shall be equipped with a flow meter to continuously measure and indicate water flow rate. Each flow meter shall be installed in an accessible location and shall be maintained by the permittee such that each one is in proper working order at all times.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

3. The permittee shall observe the water flow rate required in Condition IV. B. 2 with a frequency of not less than once per daily operation. The permittee shall keep a log of the observations and any corrective actions taken for the applicable monitored parameters established during performance testing required in Condition IV. C. 2.

   (9 VAC 5-80-110)

4. The permittee shall fill a 5 gallon bucket full of menhaden fish, determine the weight of the menhaden fish in the 5 gallon bucket by weighing the 5 gallon bucket before any menhaden fish are added and weighing the 5 gallon bucket after the menhaden fish are added, and then counting the number of menhaden fish in the bucket after determining the weight of the 5 gallon bucket of menhaden fish. The permittee shall perform this monitoring on a monthly basis during the operating season (April through December) and shall keep a log of the weight observations which should include the date, time, number of fish, weight of the

fish, and name of the observer.

(9 VAC 5-80-110)

5. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:

   a. The combined annual throughput of fish meal (expressed as the number of tons of fish processed) to the fish meal steam dryers, (S1, S2, and S3), calculated monthly as the sum of each consecutive twelve (12) month period.

   b. The annual throughput of fish meal (expressed as the number or tons of fish processed) to the fish meal flame dryer 1R, calculated monthly as the sum of each consecutive twelve (12) month period.

   c. The annual throughput of fish meal (expressed in tons of fish meal) to the fish meal cooler MC, calculated monthly as the sum of each consecutive twelve (12) month period.

   d. Records (logs) of the monthly weight observations of the caught menhaden fish as required in Condition IV. B. 4.

   e. Records of the annual inspections conducted for the cyclones required by Condition IV. B. 1 which list the times, dates, results, and any corrective maintenance taken as a result of the inspections.

   f. Records (logs) of the once per shift observations conducted on the water flow rate as required in Condition IV. B. 3 which list the times, dates, results, and any corrective actions taken as a result of these observations.

   g. A maintenance schedule for emission units S1, S2, S3, 1R, and MC1 as well as all scrubbers and cyclones required by Condition IV. A. 1.

   h. Written operating procedures for emission units S1, S2, S3, 1R, and MC1 as well as all scrubbers and cyclones required by Condition IV. A. 1.

   i. Times and dates when any scrubber or cyclone required by Condition IV A. 1 was not in use or was inoperative while emission unit being controlled was operating.

   j. All stack test results for all emission units.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

   (9 VAC 5-50-50, 9 VAC 5-80-110, Condition 5 of 7/16/04 Permit, and Condition 16 of 6/26/02 Permit)

Note: The monitoring required by Condition 4 has been revised from that listed in the draft permit submitted to EPA Region III for review on Nov. 22nd, 2006. Omega submitted further concerns regarding the draft permit on December 1, 2006. PRO met with Omega on December 11, 2006 to discuss these concerns and offer an agreeable solution to both parties. The revised monitoring is a more practical way to determine the fish weight rather than counting out 1,000 fish and weighing them and achieves the same result. In addition, the monitoring frequency will remain monthly as previously proposed. (Please see Attachment C for details.)

C. **Testing**

As part of the periodic monitoring plan for this facility, stack emission tests are being required to be performed once per permit term (i.e. once per every 5 years). These tests are being required (1) to confirm that the source is not exceeding the SO2 and PM (assuming all PM is PM10) emission limits, (2) to verify the emission factors for VOC and PM/PM10 developed in 1995 upon stack test data and amount of fish processed are still valid and (3) to verify the control efficiency of the cyclone/scrubber control equipment can in fact achieve 95% control efficiency upon which the 1995 permit emission limits were initially based and carried over in subsequent permit revisions.

1. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests for PM/PM10, VOC and Sulfur Dioxide from each emission unit, S1, S2, S3, 1R, and MC1 as exhausted to Vent Stack 1 and shall conduct performance tests for PM/PM10 for emission unit 5 as exhausted to Vent Stack 1 in order to determine compliance with the emission limits listed in Conditions IV. A. 5 and 6 and to re-derive and re-verify the PM/PM10 and VOC emission factors developed in establishing the PM/PM10 and VOC emission limits in Condition IV. A. 5. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition IV. C. 3 at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

   (9 VAC 5-80-110)

2. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests to verify control efficiency for the cyclone/scrubber (PCD ID MC1-S1 and MC1-S2) which control particulate emissions from emission unit MC1. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test

methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition IV. C. 4 at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

3. As part of each testing protocol required in Condition IV. C. 1, the permittee shall submit target operating rates for each piece equipment or operation being tested, including hourly fish processing/drying rates. The permittee shall also discuss in each testing protocol which fuels will be burned during each test to maximize emissions for those units that may burn different fuels and fuel oil sulfur content for each fuel. In each testing protocol, the permittee shall also discuss how emission factors for PM/PM10 and VOC will be derived. The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition IV. C. 1. Additionally, test reports shall contain documentation showing type and amount of fuel being used during the test, the fuel oil sulfur content, and the actual operating rate of each piece of equipment or operation being tested. In the test reports, the permittee shall compare this information to the targeted operating rates and fuels listed in each approved protocol. The testing requirement in Condition IV. C. 2. will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date for the testing protocol.
(9 VAC 5-80-110)

4. As part of each testing protocol required in Condition IV. C. 2, the permittee shall submit target operating rates for each piece of equipment or operation being tested which include hourly fish processing rates. In each testing protocol, the permittee shall also discuss how the PM/PM10 control efficiency for the cyclone/scrubber as detailed in Condition IV. C. 2 will be derived. The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition IV. C. 2. Additionally, test reports shall contain documentation showing the actual operating rate of each piece of equipment or operation being tested, the amount of fish being processed for each test run, the PM/PM10 inlet concentration to the cyclone (PCD ID MC1-S1), and the PM/PM10 outlet concentration after exiting the scrubber (PCD ID MC1-S2). In the test reports, the permittee shall compare this information to the targeted operating rates listed in each approved protocol. The testing requirement in Condition IV C. 2 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date for the testing protocol.
(9 VAC 5-80-110)

5. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9 VAC 5-80-110)

Note: Language pertaining to invalidating the required testing if physically impossible to conduct has been inserted in Condition 4. Omega requested this language in an e-mail dated December 1, 2006 which was after the draft permit was submitted to EPA Region III on Nov. 22nd, 2006. PRO did not see an issue with inserting the language since it had been placed already in other current conditions in the draft Title V permit.

Streamlined Requirements

Conditions 6 and 8 of the June 26, 2002 minor NSR permit have been combined in Condition III A. 8 of the Title V permit. Both of the minor NSR permit conditions reference limitations on the sulfur content to be burned in boilers BW1 and BW2 and fish meal flame dryer 1R. However, the minor NSR Condition 6 lists the limit on fuel oil sulfur content to not exceed 2.1%, by wt. and the minor NSR Condition 8 lists the sulfur content limit as being 2.0 %, by wt. Since the minor NSR Condition 8 is the more stringent of the two conditions, then this condition has been listed in the Title V permit with minor NSR Condition 6 referenced in the regulatory citation. It's recommended to the facility that the next time the June 26, 2002 minor NSR permit is re-opened to amend Conditions 6 and/or 8.

For the draft Title V permit, the quarterly reports required in Condition 11 of the July 16, 2004 minor NSR permit were listed under the Reporting Requirements for the CB-3 boiler as being semi-annual. The NSPS requirement listed in Subpart Dc had been changed from quarterly to semi-annual. However, the requirement in the minor NSR permit did not reflect this change. Therefore, the reporting frequency was changed to semi-annual requirements to match with the NSPS requirements and could be done through the use of streamlining the condition. However, since Condition 11 of the July 16, 2004 minor NSR permit is an underlying permit condition, then the reporting frequency was revised from semi-annual to quarterly to match the reporting frequency in the minor NSR permit.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement No. 2-2003".

This general condition cite(s) the Article(s) that follow(s):
Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:
9 VAC 5-80-80. Application
9 VAC 5-80-140. Permit Shield
9 VAC 5-80-150. Action on Permit Applications

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

J. Permit Modification

This general condition cites the sections that follow:
9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
9 VAC 5-80-190. Changes to Permits.
9 VAC 5-80-260. Enforcement.
9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:
9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction
9 VAC 5-80-110. Permit Content

STATE ONLY APPLICABLE REQUIREMENTS

The state toxics rule is not SIP approved so those requirements pertaining to HCN need to be inserted under the state only applicable requirements.

1. The fish meal dryers (1R and 5) and the fish meal cooler (MC1) hourly combined hydrogen cyanide (HCN) emissions as exhausted through Vent Stack 1 shall not exceed 1.12 lb(HCN)/hr.
   (9 VAC 5-80-110 and 9 VAC 5-60-300(C)(1)(a))

The EPA periodic monitoring guidance, dated September 18, 1998, indicates on page 4 that periodic monitoring is required for each emission point at a source, subject to Title V of the Act, that is subject to an applicable requirement. With respect to these requirements, periodic monitoring is required for the following: the emission limit for hydrogen cyanide (HCN).

As part of the periodic monitoring plan for this facility, stack emission tests are being required to be performed once per permit term (i.e. once per every 5 years). These tests are being required to periodically demonstrate compliance with the HCN SAAC levels.

2. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests for hydrogen cyanide (HCN) at the facility in order to determine compliance with the emission limit listed in Condition VIII 2. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition 6 of this section at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.
   (9 VAC 5-80-110)

3. As part of each testing protocol required in Condition VIII 2, the permittee shall submit target operating rates for each piece of fish processing/drying equipment or operation. In each testing protocol, the permittee shall also discuss which emission units will be operated during the HCN testing . The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition VIII 2. Additionally, test reports shall contain documentation showing the amount of fish being processed for each test run, the concentration of HCN for emission units 1R and 5R before any fish are processed, the concentration of HCN for emission units 1R and 5R after fish processing, but prior to entry to the cyclone/scrubber, and the outlet concentration of HCN after exiting the cyclone/scrubber. In the test reports, the permittee shall compare this information to the targeted operating rates listed in each approved protocol. The testing requirement in Condition VIII 2 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date

for the testing protocol.
(9 VAC 5-80-110)

Note: Language pertaining to invalidating the testing requirements has been inserted to Condition 3. Omega made this request after the draft permit was submitted to EPA, Region III on Nov. 22nd, 2006 for review. PRO did not see an issue with inserting the language since it had been placed already in other current conditions in the draft Title V permit.

FUTURE APPLICABLE REQUIREMENTS

The facility would become applicable to National Emission Standards for Hazardous Air Pollutants Industrial/Commercial/Institutional Boilers and Process Heaters (40 CFR 63 Subpart DDDDD-Boiler MACT) if future process changes occur in which the facility's potential to emit for HCN equals or exceeds 10 tons per year.

INAPPLICABLE REQUIREMENTS

40 CFR Part 60 Subparts K, Ka and Kb are not applicable because all were installed prior to 1984 and thus not subject. However, the one petroleum tank installed after 1973 is exempt under 40 CFR Part 60.111(b).

40 CFR Part 60 Subpart Dc is not applicable to the CB-2 boiler because the unit was constructed in 1988 which is prior than the applicability date of June 9, 1989. It is also not subject to 40 CFR Part 60 Subparts D, Da, or Db because it is not an electric utility steam generating unit nor does it have a heat input rate exceeding 250 MMBTU/hr.

40 CFR Part 60 Subpart D is not applicable to emission units BW1 and BW2 because each unit's heat input rate is less than the 250 MMBTU/hr applicability level.

40 CFR Part 60 Subpart Dc is not applicable to emission unit 1R because it is not a steam generating unit.
40 CFR Part 60 Subpart Dc is not applicable to emission unit 5R because it was installed prior to the applicability date of June 9, 1989 and is not a steam generating unit.

9 VAC 5 Chapter 40-Part II-Article 4 Existing Stationary Sources Emission Standards for General Process Operations (Rule 4-4) pertaining to the VOC and NOx standards do not apply to S1, S2, S3, 1R, 5 & MC1 since the source is not within a VOC control area. Also, for the SO2 emission standards, S1, S2, S3, & MC1 are applicable to the non-combustion standard but will not be inserted as a permit condition since none of the units produce or emit SO2. Units 1R and 5 are subject to the SO2 combustion standard. The combustion standard of 199.6 lb/hr of SO2 for unit 1R will not be used since the combined PM emission limit for S1, S2, S3, 1R, and MC is more stringent. CB2 is subject to the SO2 emission standard in Rule 4-4 but is not subject to the particulate standard since according to the process weight definition, liquid fuel is not counted in process weight. CB3 is not subject to Rule 4-4 since it is subject to more restrictive standards in NSPS Subpart Dc.

9 VAC 5 Chapter 40-Part II-Article 8 Existing Stationary Sources Emission Standards for Fuel Burning Equipment (Rule 4-8) is not applicable to emission units 1R and 5 regarding the fuel burning requirements for PM and SO2. The units do not meet the definition of fuel burning equipment as given in Rule 4-8. CB2 and CB3 are not subject to Rule 4-8 because they do not meet the fuel burning equipment installation definition since they have been in operation after October 5, 1979. The NUK/CB4 is exempt from Rule 4-8 due to its size.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1]	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
TK46	No.2 oil tank 308,000 gal (1972)	9 VAC 5-80-720B	VOC	N/A
TK75	No.2 oil tank 152,000 gal (1976)	9 VAC 5-80-720B	VOC	N/A
TK70	No. 6 oil tank 508,000 gal (1971)	9 VAC 5-80-720B	VOC	N/A

Emission Unit No.	Emission Unit Description	Citation[1]	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
TK71	No. 6 oil tank 508,000 gal (1972)	9 VAC 5-80-720B	VOC	N/A
TK1	Fish oil tank 15,000 gal	9 VAC 5-80-720B	VOC	N/A
TK2	Fish oil tank 15,000 gal	9 VAC 5-80-720B	VOC	N/A
TK3	Fish oil tank 15,000 gal	9 VAC 5-80-720B	VOC	N/A
TK5	Fish oil tank 132,000 gal	9 VAC 5-80-720B	VOC	N/A
TK7	Fish oil tank 500,000 gal	9 VAC 5-80-720B	VOC	N/A
TK10	Fish oil tank 101,000 gal	9 VAC 5-80-720B	VOC	N/A
TK9	Fish oil tank 293,000 gal	9 VAC 5-80-720B	VOC	N/A
TK76	Fish oil tank 500,000 gal	9 VAC 5-80-720B	VOC	N/A
TK4	Fish oil tank 20,000 gal	9 VAC 5-80-720B	VOC	N/A
TK6	Fish oil tank 50,000 gal	9 VAC 5-80-720B	VOC	N/A
TK8	Fish oil tank 300,000 gal	9 VAC 5-80-720B	VOC	N/A
F7	Fish oil tank 17,000 gal	9 VAC 5-80-720B	VOC	N/A
F11	Fish oil tank 17,000 gal	9 VAC 5-80-720B	VOC	N/A
F8	Fish oil tank 20,000 gal	9 VAC 5-80-720B	VOC	N/A
F9	Fish oil tank 20,000 gal	9 VAC 5-80-720B	VOC	N/A
F10	Fish oil tank 20,000 gal	9 VAC 5-80-720B	VOC	N/A
F12	Fish oil tank	9 VAC 5-80-720B	VOC	N/A

Emission Unit No.	Emission Unit Description	Citation[1]	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
	20,000 gal			

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit was placed on public notice in the Northumberland Echo. The 30 day comment period specified in the public notice ran from October 18, 2006 through November 17, 2006. The only comments received during the Public Notice period were from the facility, Omega Protein, Inc. Attachment B details our (Piedmont Regional Office) response to Omega's comments and revision requests. After incorporating the revisions, it has been determined that the draft Title V does not need to be public noticed again. The stringency and frequency for the applicable requirements, periodic monitoring/recordkeeping, and testing requirements are comparable to those listed in the draft Title V permit. Therefore, the revised draft Title V permit is being submitted to EPA, Region III on November 22, 2006 for their 45 day comment period which would end on January 6, 2007.

Omega submitted an e-mail on December 1, 2006 re-iterating their previous concerns along with new ones with the draft Title V permit submitted to EPA Region III for review on November 22, 2006. PRO in an effort to allay Omega's concerns while facilitating the issuance of the draft Title V as close to the end of year 2006 as mandated by EPA Region III met with Omega on December 11, 2006. PRO addressed Omega's concerns detailed in the Dec. 1st e-mail (See Attachment C) during the meeting. Omega and PRO agreed to the proposed revisions. PRO submitted these revised draft conditions to EPA Region III in an e-mail dated December 12, 2006 (See Attachment D). As outlined in the e-mail, PRO concluded that the revisions did not trigger public notice requirements nor the 45 day EPA review period. PRO did allow for EPA to have additional review time for the changes and requested that EPA notify PRO if it was necessary. On January 4, 2007, EPA Region III requested additional review time and PRO agreed to the request. EPA Region III contacted PRO on January 9, 2007 to inform us that they felt that the 45 day review period for the draft permit did not begin until the latest draft revisions were sent to EPA Region III on December 12, 2006 rather than November 22, 2006. This would mean that the 45 day review period would end on January 26, 2007, thus pushing back the issuance of the

Title V permit. PRO was concerned that we would be reprimanded by EPA for the issuance delay, but since EPA was the source of the delay, then there would be no issue. EPA Region III notified PRO via an e-mail dated January 22, 2006 that they had no comments regarding the draft Title V permit and we could precede with issuance.

ATTACHMENT A

SCREEN3 Modeling Results for HCN @ Maximum Fish Drying Capacity

09/01/06
10:38:30

```
 ***  SCREEN3 MODEL RUN  ***
 *** VERSION DATED 96043 ***

Omega Protein-MRC
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```
 SIMPLE TERRAIN INPUTS:
    SOURCE TYPE            =        POINT
    EMISSION RATE (G/S)    =     0.141100
    STACK HEIGHT (M)       =      38.1000
    STK INSIDE DIAM (M)    =       3.0480
    STK EXIT VELOCITY (M/S)=       4.5232
    STK GAS EXIT TEMP (K)  =     309.0944
    AMBIENT AIR TEMP (K)   =     293.1500
    RECEPTOR HEIGHT (M)    =       0.0000
    URBAN/RURAL OPTION     =        RURAL
    BUILDING HEIGHT (M)    =      18.2880
    MIN HORIZ BLDG DIM (M) =      91.4400
    MAX HORIZ BLDG DIM (M) =     304.8000

 THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.


 BUOY. FLUX =    5.314 M**4/S**3;  MOM. FLUX =   45.067 M**4/S**2.

 *** FULL METEOROLOGY ***

 **********************************
 *** SCREEN AUTOMATED DISTANCES ***
 **********************************

 *** TERRAIN HEIGHT OF    0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES
***
```

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.1	320.0	106.39	2.03	2.00	NO
100.	3.475	6	4.0	8.3	10000.0	39.47	4.56	15.96	HS
200.	4.208	6	4.0	8.3	10000.0	43.70	8.39	22.29	HS
300.	2.513	4	5.0	6.1	1600.0	45.74	22.88	25.46	HS
400.	2.352	4	5.0	6.1	1600.0	45.74	29.66	28.16	HS
500.	2.214	4	4.0	4.9	1280.0	49.94	36.41	30.91	HS
600.	1.957	3	3.0	3.4	960.0	58.86	65.01	47.03	HS
700.	1.853	4	3.5	4.3	1120.0	52.93	49.44	33.92	HS
800.	1.767	4	3.5	4.3	1120.0	52.93	55.80	35.89	HS
900.	1.732	3	1.5	1.7	480.0	81.83	94.51	56.91	NO
1000.	1.710	3	1.5	1.7	480.0	81.83	103.87	62.40	NO
1100.	1.649	3	1.5	1.7	480.0	81.83	113.15	67.87	NO
1200.	1.628	3	1.0	1.1	320.0	103.70	123.15	74.63	NO
1300.	1.603	3	1.0	1.1	320.0	103.70	132.23	79.95	NO
1400.	1.557	3	1.0	1.1	320.0	103.70	141.26	85.26	NO
1500.	1.499	3	1.0	1.1	320.0	103.70	150.23	90.55	NO
1600.	1.435	3	1.0	1.1	320.0	103.70	159.15	95.83	NO
1700.	1.367	3	1.0	1.1	320.0	103.70	168.02	101.09	NO
1800.	1.299	3	1.0	1.1	320.0	103.70	176.84	106.33	NO
1900.	1.232	3	1.0	1.1	320.0	103.70	185.62	111.56	NO
2000.	1.167	3	1.0	1.1	320.0	103.70	194.35	116.77	NO

2100.	1.135	4	1.5	1.8	480.0	79.00	134.24	53.06	NO
2200.	1.125	4	1.5	1.8	480.0	79.00	139.97	54.59	NO
2300.	1.112	4	1.5	1.8	480.0	79.00	145.68	56.11	NO
2400.	1.097	4	1.5	1.8	480.0	79.00	151.37	57.60	NO
2500.	1.080	4	1.5	1.8	480.0	79.00	157.03	59.07	NO
2600.	1.062	4	1.5	1.8	480.0	79.00	162.66	60.52	NO
2700.	1.042	4	1.5	1.8	480.0	79.00	168.28	61.96	NO
2800.	1.022	4	1.5	1.8	480.0	79.00	173.88	63.37	NO
2900.	1.002	4	1.5	1.8	480.0	79.00	179.45	64.77	NO
3000.	0.9903	4	1.0	1.2	320.0	99.46	185.47	67.43	NO
3500.	0.9411	4	1.0	1.2	320.0	99.46	212.91	73.60	NO
4000.	0.8806	4	1.0	1.2	320.0	99.46	239.95	79.45	NO
4500.	0.8195	5	1.0	1.6	10000.0	82.48	199.49	54.32	NO
5000.	0.7920	5	1.0	1.6	10000.0	82.48	219.23	57.13	NO
5500.	0.7610	5	1.0	1.6	10000.0	82.48	238.75	59.82	NO
6000.	0.7289	5	1.0	1.6	10000.0	82.48	258.08	62.39	NO
6500.	0.6967	5	1.0	1.6	10000.0	82.48	277.23	64.86	NO
7000.	0.6654	5	1.0	1.6	10000.0	82.48	296.21	67.24	NO
7500.	0.6353	5	1.0	1.6	10000.0	82.48	315.03	69.54	NO
8000.	0.6067	5	1.0	1.6	10000.0	82.48	333.71	71.77	NO
8500.	0.5796	5	1.0	1.6	10000.0	82.48	352.25	73.93	NO
9000.	0.5540	5	1.0	1.6	10000.0	82.48	370.66	76.04	NO
9500.	0.5414	6	1.0	2.1	10000.0	71.79	258.97	46.42	NO
10000.	0.5316	6	1.0	2.1	10000.0	71.79	271.07	47.37	NO
15000.	0.4335	6	1.0	2.1	10000.0	71.79	388.55	55.72	NO
20000.	0.3524	6	1.0	2.1	10000.0	71.79	501.04	61.06	NO
25000.	0.2956	6	1.0	2.1	10000.0	71.79	609.83	65.57	NO
30000.	0.2538	6	1.0	2.1	10000.0	71.79	715.65	69.51	NO
40000.	0.1972	6	1.0	2.1	10000.0	71.79	920.27	75.11	NO
50000.	0.1610	6	1.0	2.1	10000.0	71.79	1117.46	79.77	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

183.	**4.747**	6	4.0	8.3	10000.0	43.08	7.79	22.17	HS

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** REGULATORY (Default) ***
PERFORMING CAVITY CALCULATIONS
WITH ORIGINAL SCREEN CAVITY MODEL
(BRODE, 1988)
****

*** CAVITY CALCULATION - 1 ***		*** CAVITY CALCULATION - 2 ***	
CONC (UG/M**3)	= 0.000	CONC (UG/M**3)	= 0.000
CRIT WS @10M (M/S)	= 99.99	CRIT WS @10M (M/S)	= 99.99
CRIT WS @ HS (M/S)	= 99.99	CRIT WS @ HS (M/S)	= 99.99
DILUTION WS (M/S)	= 99.99	DILUTION WS (M/S)	= 99.99
CAVITY HT (M)	= 18.29	CAVITY HT (M)	= 18.29
CAVITY LENGTH (M)	= 103.24	CAVITY LENGTH (M)	= 71.12

```
  ALONGWIND DIM (M)  =    91.44        ALONGWIND DIM (M)  =   304.80

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S.  CONC SET = 0.0

****************************************
      END OF CAVITY CALCULATIONS
****************************************


 *** INVERSION BREAK-UP FUMIGATION CALC. ***
  CONC (UG/M**3)   =    2.060
  DIST TO MAX (M)  =  2568.99

     ****************************************
     *** SUMMARY OF SCREEN MODEL RESULTS ***
     ****************************************

 CALCULATION        MAX CONC    DIST TO   TERRAIN
  PROCEDURE        (UG/M**3)    MAX (M)    HT (M)
--------------    -----------   -------   -------
SIMPLE TERRAIN      4.747          183.        0.

INV BREAKUP FUMI    2.060         2569.       --
```

ATTACHMENT B

Virginia Department of Environmental Quality
Piedmont Regional Office
Memorandum

TO: Omega Protein, Reg. No. 40278
FROM: Lisa Childress, DEQ Environmental Engineer Senior
RE: Summary - Comments Concerning the Revision of the Title V Permit
DATE: November 22, 2006

Here are the DEQ responses to the comments from Omega Protein in a November 16, 2006 e-mail concerning the Title V permit.

Section II Revisions:

A. The Stack ID references have been revised as requested.
B. The Emission Unit ID for the Renneburg Burner has been revised to 5.
C. The size/rated capacity changes for the S1 steam dryer have been incorporated after reviewing the steam capacities listed in Condition No. 2 of the June 26, 2002 permit.
D. The capacity rating for the Renneburg Burner has been revised to MMBtu/hr units to be consistent with the capacity rating listing for the other fish meal flame dryer (1R).
E. In addition, the hourly fish drying capacity for units 1R, 5, S1, S2, S3 and MC1 have been inserted under size/rated capacity because these units are applicable to Rule 4-4, which is based on particulate standards. Note: The process capacities are taken from 11/19/01 process application weight.

Section III Revisions:

A. Limitations
    a. Current Condition No. 2 has been combined with current Condition No. 4 as requested.
    b. Current Condition No. 6 will be deleted. Streamlined into Condition No. 10 since it is more restrictive in sulfur content than Condition No. 6. If and when the minor NRS permit dated June 26, 2002 is re-opened, amended or modified, then Condition No. 6 of the June 26, 2002 permit should be changed to 2.0 percent.
    c. Current Conditions III A. 13 and 17 and IV A. 6 (formaldehyde) cannot be removed from the Title V permit since they are both underlying applicable permit conditions in current minor NSR permits. The only way for the conditions to be removed is if they are removed from the minor NSR permits. Current Condition No. 15 has been deleted.
    d. Current Condition No. 14 has been revised to include the fish meal flame dryer (5) in the more restrictive visible emissions requirement for Vent Stack 1 since the exhaust is vented to this stack, which has its own opacity limit.
    e. Current Condition No. 18 has been revised after further review of Rule 4-8. Based on this review, it has been determined that only BW1 and

BW2 meet the definitions of fuel burning equipment and fuel burning equipment installation in Rule 4-8. The emissions units 1R, 5 and CB2 are subject to the standards in Rule 4-4.

f. Current Condition Nos. 19 and 20 have been revised since the maximum allowable emission ratio listed in current Condition No. 18 has changed.
g. Current Condition No. 21 has been removed. The process weight definition in Rule 4-4 does not include liquid fuels charged, thus the particulate standard in Rule 4-4 is not applicable.
h. Current Condition No. 22 has been removed since the flame dryer is not subject to Rule 4-8, as previously explained, but Rule 4-4. Flame Dryer 5 has been included in the combined particulate standard listed in current Condition IV. A. 7.
i. Current Condition No. 26 has been removed from Section III and inserted under process limitations in Section IV, where it is more applicable.
j. Current Condition No. 27 has been deleted since it is covered by Condition III B.7.k.
k. Current Condition No. 29 has been removed from Section III and inserted under the State Only Enforceable Conditions.

<u>Section III Revisions:</u>

B. Periodic Monitoring / Record Keeping
   a. Current Condition No. 3i and 3j has been removed since the revised Engineering Report submitted by Omega in September, 2006 states on page no. 6 that the “degradation of fish (an organic matter) produces hydrogen cyanide gas, along with ammonia and other gases. Apparently, the heating of fish organic matter in the drying process encourages the production of these gases.” From this statement, it is reasoned that the cyanide is from the fish, not the fuel oil.
   b. The frequency of the visual emission inspection has been revised in Condition No. 5 based upon the fuel burned. Since BW1 and BW2 boilers can burn residual oil, then their visual emissions inspection frequency is weekly. The CB2 and CB3 boilers visual emission inspection frequency has been reduced to monthly, since they are permitted to use only distillate oil. The visual emission inspection frequency for the NUK/CB4 heater has been removed completely, since it is using propane exclusively. Since several sources exhaust to Vent Stack No. 1, then this stack has been included in the visual

emission frequency schedule rather than the individual units that vent to it. The visual emission inspection frequency for Vent Stack No. 1 shall be weekly due to emission units 1R and 5, which burn residual oil.

c. The observation frequency of the water flow rate listed in Condition No. 6 has been revised to once per daily operation rather than once per shift. The requirement for keeping the logs will remain in the condition since it specifies the parameter established during performance testing to be monitored whereas the record keeping requirements do not.
d. Current Condition No. 7.c. will remain as is since current Condition No. 7.k. covers the daily fuel use recording.
e. Current Condition No. 7.g. has been revised to reflect the log frequency as once per daily operation rather than once per week.
f. Current Condition No. 7.l. has been revised to reflect the various visible emission frequencies.

Section III Revisions:

C. Testing:
   a. The testing requirement for HCN has been moved to the State Only Enforceable Conditions Section.
   b. The PM/PM10 and SO2 testing for the BW1 and BW2 boilers and Flame Dryer 1R will remain as a requirement. Periodic monitoring for these units if built today would be SO2 CEMs. Since that is not applicable in this case, the next step in the monitoring hierarchy would be stack testing. In addition, the stack testing verifies compliance with emission limits that keep the facility from being PSD applicable.
   c. The requirement for stack testing the control efficiencies for the cyclones/scrubbers controlling particulate emissions from emission unit no. 1R will remain in the permit. Permit emission limits are based upon this control efficiency and the test is required to demonstrate compliance. An exception to this required testing has been inserted in the testing protocol requirement. To invalidate the requirement, Omega must submit supporting documentation detailing why testing cannot be physically conducted and have it approved by PRO 120 days prior to the required submittal date for the testing protocol.
   d. The testing table has been removed because the Title V boilerplate used in drafting this permit replaced the table with language after the public notice for the draft permit was published.

Section III Revisions:

D. Testing / Notifications:
   a. The semi-annual reporting period listed in current Condition No. 1 has been replaced with the quarterly reporting requirements. The current condition was an attempt at streamlining the reporting frequency since the NSPS Subpart Dc requires semi-annual rather than quarterly reporting. However, the underlying minor NSR permit condition still requires quarterly reporting. Until the minor NSR permit language is revised, the Title V requirement will remain as quarterly.
   b. The notification requirements have not been removed because the required written notifications are not in our files. Omega can submit copies of the required notifications along with a request to amend the Title V requirements after its issuance.

Section IV Revisions:

A. Limitations
   a. Current Condition No. 1 will only reference the fish meal cooler (MC1) since the equipment for the fish meal flame dryer (1R) has already been listed in Condition III. A. 1.
   b. Current Condition No. 5 will be deleted since Condition III. A. 19 already covers the Vent Stack No. 1 opacity requirement. Also, please note that the start-up, shut down and malfunction exclusions cannot be listed in Title V permits because they are not SIP approved. Please see the Inapplicable Requirements Section listed in the Statement of Basis for further details.
   c. The fish meal flame dryer (5) has been included with the other emission units particulate standard required in current Condition No. 5. The facility maximum capacity drying rate and weight conversion factor will also remain.
   d. If the 667 lb (fish) / per 1000 fish weight conversion factor is incorrect, then Omega has the following options: (1) re-submit a Title V application Form 805 listing a maximum processing weight (lb(fish)/hr) for units S1, S2, S3, 1R, 5 and MC1 and submit a Form 7 application to request a simultaneous modification to the emission limits listed in the June 26, 2002 minor NSR permit upon which the 667 lb (fish) / per 1000 fish was used to develop the permit emission limits to correct the emission limits or (2) request a simultaneous modification to the

throughput limits in the June 26, 2002 permit be revised to lb (fish) / hr. and lb (fish) / year rather than the number of fish , so that the weight conversion factor of 667 lb (fish) / per 1000 fish is not necessary. Otherwise, the listing of the 667 lb (fish) / 1000 fish is necessary for insertion to demonstrate what the particulate standard is based on.

Section IV Revisions:

B. Periodic / Monitoring:
   a. Current Condition No. 3 has been removed since Condition III B. 5. covers the monitoring frequency of Vent Stack No. 1.
   b. Current Condition No. 5 will remain. Compliance with current emission limits as written are dependent upon this weight conversion factor. Therefore, periodic monitoring is required for the factor to demonstrate compliance with emission limits. In the future, if the underlying permit conditions are amended so that this weight conversion factor is non-applicable, then the Title V condition can be removed.
   c. Requirements in current Condition No. 5, d, e and f will remain in the permit. Condition Nos. 5.h. and 5. j. have been removed since Section III covers these same requirements.

Section IV Revisions:

C. Testing:
   a. The testing schedule for PM/PM10, VOC, and SO2 will remain in the permit as is. Omega can request an amendment to the Title V for removal if the testing frequency after the initial testing permit issuance has been completed and analyzed. No other pollutants are required for testing in this permit condition at this time.
   b. Current Condition No. III C.3. has been moved to the processing emission units section because it is more appropriate here rather than the fuel burning section.
   c. Current Condition No. 3 will remain in the permit with the revisions in the language pertaining to the fish meal cooler (MC1) and its associated control equipment (MC1 - S1 and MC1 – S2).

ATTACHMENT C

Virginia Department of Environmental Quality
Piedmont Regional Office
Memorandum

TO: Omega Protein, Reg. No. 40278

FROM: Lisa Childress, DEQ Environmental Engineer Senior
RE: Omega's Response to PRO Comments Dated 12-01-06
DATE: December 11, 2006

Here are the DEQ responses to the comments from Omega Protein in a December 7, 2006 e-mail concerning PRO responses to Omega's e-mail dated December 1, 2006.

III A 11 and III C 1: Assuming that DEQ approves the invalidation of III C 1 (upon submission of supporting documentation that it is physically impossible) does it make sense to identify the alternate method of demonstrating compliance which would be to use fuel consumption and AP-42 factors? This is the method we have been using to demonstrate compliance with the NSR permit.

The fuel consumption and AP-42 emission factors are already identified as being part of the periodic monitoring for emission units, BW1, BW2, and 1R. The Statement of Basis details on page 13 that periodic monitoring for the fuel burning sources consists of fuel supplier certifications to demonstrate compliance with sulfur limits, AP-42 emission factors, each unit's heat input rating, and good operating practices and the Title V permit details in Conditions III B. 3 and III B. 7 these requirements.

III C 3 Assuming that DEQ approves the invalidation of III C 1 (upon submission of supporting documentation that it is physically impossible), does III C 3 become invalidated??

Condition III C. 3 becomes invalidated as well if it is determined that the testing required in Condition III C. 1 is physically impossible. Condition III C. 3 is dependant upon Condition III C. 1. However, please be aware that Conditions III C.1 and III C. 3 are still valid if it is determined that testing is physically possible for any one of the emission units BW1, BW2, and 1R.

III C 5 and IV C 5 This was not in the draft so this is the first time we are able to comment. This places a difficult burden on Omega since we are planning to change the existing process whereby steam dryers will accomplish all drying. Since there is no published emissions data on such a process, we expect to be doing some unusual testing around the existing steam dryers in an effort to determine presence/absence (for example) of hydrogen cyanide whereby we will be simulating an all steam drying system. These are "field" tests (and not necessarily compliance tests) that will give an indication of future expected emissions. Such indications will provide guidance for the next phase. It seems unreasonable for us to have to obtain approval for performing

operational type tests. Further, we question that 9 VAC 5-80-110 gives DEQ authority to require this prior approval.

As detailed in my response dated November 22, 2006, the prior testing tables listed in Conditions III C. 5 and IV. C. 5 were removed because the Title V boilerplate used in drafting this permit replaced each table with language after the public notice for the draft permit was published. The prior testing tables and the current language in Conditions III C. 5 and IV. C. 5 pertain only to the testing conditions contained within the Title V permit and do not pertain to any testing that the facility conducts on its own. The only time that appropriate method(s) and/or procedure(s) may come into play when a source conducts stack testing on its own, is if the source plans to submit the stack testing to DEQ in order to demonstrate compliance, to revise a permit requirement, or to show that a permit requirement is not applicable. In that case, it may be best if Omega submit a test protocol to the DEQ for approval and for DEQ to have the option to observe the stack testing.

III D 2 Your comment that these notifications aren't in DEQ files concerns us because they were submitted during the process of satisfying the Notice of Violation and Consent Order. Does Omega need to resubmit this notification?

To my knowledge, the notification requirements listed in Condition III D. 2 of the Title V permit are underlying applicable permit requirements of the July 16, 2004 minor NSR permit and not due to requirements of an air Notice of Violation and/or Consent Order.

Further review of our database has uncovered a letter dated August 1, 2004 and received August 3, 2004 from Lyell Jett in which he states that the new boilers located at the new oil facility were set in place on June 14, 2004 and the steam piping was connected on July 1, 2004. It's unclear from the letter if one of the boilers would be the CB3 boiler which the notifications pertain to. However, I am inferring that one of the boilers is the referenced CB3 boiler and that the June 14, 2004 date was the date of construction. Also, the letter does not reference the anticipated and/or an actual start-up dates for the CB3 boiler as required in Condition III D. 2. Since we have no other correspondence in our files pertaining to the start-up notification dates for the CB3 boiler or the information such as the design heat input capacity and identification of fuels to be

burned in the CB3 as required by NSPS and noted in Condition III D. 2. d of the Title V permit, then these requirements will remain in the permit. Omega can submit copies of these required notifications along with a request to amend the Title V permit after its issuance.

IV B 4 A federal agency, the National Marine Fisheries Service (NMFS) has determined that a "standard" menhaden fish weighs 0.667 pounds. This standard average weight is based upon decades of measurement and analysis by NMFS and appears as such in their annual reports on the status of the menhaden fishery. Even though Omega's spot checks from time to time suggests that the weight is actually more than 0.667, Omega finds it acceptable to use 0.667. The act of counting out and weighing 1000 fish every month to confirm the work of NMFS scientists seems extraordinary and needless.

Periodic monitoring requirements consist of testing, monitoring, recordkeeping, and reporting requirements that enable a compliance determination to be made for applicable requirements such as emission limitations and standards. With this in mind, the hourly particulate matter limitation listed in Condition IV A. 6 and the annual emission limitations listed in Condition IV A. 5 for PM, PM-10, and VOC are based upon the number of fish processed and a weight conversion factor. Since the emission limits are based upon these factors, then the periodic monitoring in order to demonstrate compliance with the limitations would be keeping track of the number of fish processed which is required by recordkeeping and verifying periodically the weight conversion factor. However, the verification of the weight conversion factor can be simplified in the following manner: On a monthly basis, fill a 5 gallon bucket full of menhaden fish, determine the weight of the fish in the bucket (weighing the bucket before putting any fish in it and then weighing the bucket after putting the fish in it), and then counting the number of fish in the bucket. A log detailing all this information plus the date, time, and name of operator will be required. Since Omega has been periodically "spot checking" the fish weight, then the proposed manner could be easily incorporated by Omega.

As an observation, it would be easier for Omega and PRO if the throughput limits listed in the June 26, 2002 minor NSR permit were listed in terms of lb(fish)/yr or tons(fish)/yr rather than number of fish/yr. If the throughput limits were in a weight basis, then the weight conversion factor and corresponding monitoring would not be necessary. Perhaps in the future, if the June 26, 2002 minor NSR permit is modified, then the throughput

limits could be revised.

IV C 1 and IV C 3 This testing is not physically possible. Please allow the same wording as stated in IV C 4 "The testing requirement in Condition IV C 1 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted……..". The 1997 test was performed on Vent Stack 1 which was the combined exhausts of two steam dryers, 1R, MC1 and 5 (because 5 could not be excluded). Further, this compliance should have an alternate means of demonstration compliance using AP-42 factors.

The wording stated in Condition IV C.4 regarding the stack test requirement invalidation can be included in Condition IV C. 3.

Also, the type of documentation detailing why the required stack testing cannot be physically conducted that we would like to be submitted pertains to specific reasons on why the stack tester cannot physically conduct the testing. For instance, in the case of Vent Stack 1, we're looking for specific details on exactly why the stack tester can't measure the specified pollutant in the testing condition from each emission unit's header or duct that feeds into Vent Stack 1 when all units are operating or even some of the units are operating or why can't each emission unit operate separately in order to test it from Vent Stack 1. The proposed reason you listed for being physically unable to perform the stack test is not the supporting documentation that we're looking for to invalidate the stack test. Also, please be aware that Condition IV C.1 is still valid if it is determined that testing is physically possible for any one of the emission units S1, S2, S3, 1R, 5, or MC1.

In response to using AP-42 emission factors in place of the required stack testing, I am assuming you are referring to the SO2 emissions since the PM, PM-10 and VOC emissions are based upon emission factors developed by Omega from prior stack testing. The intermittent stack testing (once every 5 years) is being required to verify periodically that Omega is in compliance with SO2 emission limit in Condition IV A. 5 because it is very close to PSD applicability levels. Even though fuel supplier certifications are used to demonstrate compliance with sulfur limitations, there have been sources within the Tidewater Regional Office and Piedmont Regional Office areas that when they tested to demonstrate compliance with their SO2 emission limits, they showed an exceedance in the limits because the sulfur contained in the fuel and certified by their fuel supplier was in error. With this situation in mind, it appears to be a good

practice to conduct the intermittent stack testing to verify the fuel supplier certifications and the AP-42 emission factors since Omega is within 0.2 tons of PSD applicability in Condition IV A. 5.

VII C 3 and VII D Our issue is with the effective date of the permit relative to the submission of semi-annual monitoring results (VII C 3a.) and especially the Annual Compliance Certification (VII D 1). We don't know the effective date of the permit. If the permit is effective on any date in December, then we must submit information on just a few number of operating days. We have been informed that the Annual Compliance Certification is quite labor intensive. Our issue would be resolved if you would have an effective date of January 1, 2007 or not require such documentation on just a few days of operation.

The effective date of the permit can be the same as the issuance date. The EPA 45 day comment period ends on January 6, 2007. If there are no comments from EPA regarding the permit, then the permit would be issued approximately January 8, 2007 and the effective date would then be that date.

VIII 1 You have taken the highest HCN concentration of 0.961 lbs/hr during 3 stack test runs and calculated the maximum Predicted Ambient Air concentration level of 4.747 µg/m^3 which is significantly below the calculated SAAC level of 275 µg/ m^3 (by two orders of magnitude). In our meeting with DEQ on November 8, 2006 we explained how cyanide concentrations in water are highly variable. We have performed only one stack test, one snapshot, so we don't have good definition on the maximum and minimums of cyanide in the air. It appears that you have some "room" beneath the level of 275 with which to increase the permit limit. The next stack test could easily yield a concentration of, say, 0.97 which would throw us into enforcement action. We are just asking for a little flexibility when it appears that you have flexibility to give. Our issue could be resolved if the permit limit were raised.

As I discussed in the Statement of Basis under the Compliance section, on page 3, for Title V permitting and monitoring purposes, the highest HCN concentration emitted during the stack testing should be extrapolated to correspond to the maximum number of fish dried per hour (300,000) as indicated in the Title V air permit application dated January 30, 1998. The stack test

was based upon the facility having a maximum hourly fish drying capacity of approximately 280,000. The extrapolation is as follows:

256, 750 fish dried per hour per stack test run
0.961 lb(HCN)/hr-Highest HCN concentration during 3 stack test runs
0.961 lb(HCN)/hr x hr/256,750 fish dried = 3.74 x 10^{-6} lb(HCN)/fish dried
3.74 x 10-6 lb(HCN)/fish dried x 300,000 maximum fish dried/hr = 1.12 lb(HCN)/hr

The SACC level for HCN is calculated using the formula listed in 9 VAC 5-60-320(1) and the listed TLV-C value of 11 mg/m^3 in the 1991-1992 ACGIH Handbook. The maximum Predicted Ambient Air Concentration level of **4.747** ug/m^3 is below the calculated SACC level of **275** ug/m^3. Thus, the extrapolated maximum HCN hourly emission rate is in compliance with the SACC.

The maximum flexibility that DEQ can give to Omega has been given. The emission limit listed in Condition VIII 1 is the extrapolated emission limit of 1.12 lb/hr which has been based upon the facility's maximum hourly fish drying capacity. If DEQ were to list an emission limit higher than 1.12 lb(HCN)/hr, then that emission limit would be based upon a fish drying capacity that the facility cannot reach and if it did, then Omega may be in violation of permitting requirements.

VIII 3 This testing is not physically possible. Please allow the same wording as stated in IV C 4 "The testing requirement in Condition VIII 3 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted……."

The wording stated in Condition IV C.4 regarding the stack test requirement invalidation can be included in Condition VIII 3.

Also, the type of documentation detailing why the required stack testing cannot be physically conducted that we would like to be submitted pertains to specific reasons on why the stack tester cannot physically conduct the testing. For instance, in the case of Vent Stack 1, we're looking for specific details on exactly why the stack tester can't measure the specified pollutant in the testing condition from each emission unit's header or duct that

feeds into Vent Stack 1 when all units are operating or even some of the units are operating or why can't each emission unit operate separately in order to test it from Vent Stack 1. Just saying that testing is not physically possible is not the supporting documentation that we're looking for to invalidate the stack test. Also, please be aware that Condition VIII 3 is still valid if it is determined that testing is physically possible for any one of the emission units 1R or 5.

ATTACHMENT D

From: Childress,Lisa **Sent: Tue 12/12/2006 5:04 PM**

To: 'Mccauley.Sharon@epamail.epa.gov'

Subject: Permit Revisions: EPA 45 Day Review for Final Draft Title V -PRO40278 Omega Protein, Inc

Attachments: 40278 Final TV Permit 12-11-06 Revisions.doc

Sharon:

Omega Protein submitted to me more comments regarding their Title V permit as submitted to you. After meeting with them yesterday (Monday, December 11, 2006), I believe that we have resolved their issues without compromising the Title V permit review. Below is a brief synopsis of the requested changes and their resolution:

Condition III D 2.
Omega claimed to have submitted the notification of construction date as required in Condition III D 2 a. After further review of our paper and computer files, we located the submitted construction notification and agreed to remove just this requirement. All the other notification requirements will remain. This change is administrative in nature and did not trigger the public notice procedures. We also feel that since it is administrative in nature that the 45 day EPA review period would not have to be re-started.

Condition IV B 4.
Omega requested that an alternate method be devised other than the counting out of 1,000 menhaden fish and weighing them to verify the weight conversion factor. We checked with our (Piedmont Regional Office) water monitoring group on alternate methods for fish weight verification. We determined that filling a 5 gallon bucket with the menhaden fish, determining the fish weight by weighing the bucket before and after filling and then counting the number of fish in the bucket would achieve the same goal as the current requirement. Again, we feel that this change is administrative in nature and does not trigger public notice procedures because the monitoring frequency will remain the same and the revised monitoring method is

equivalent to that currently listed in the permit. And, we also feel that the 45 day EPA review period would not have to be restarted due to these changes.

Conditions IV C 4 and VIII 3.
Omega requested that the stack testing invalidation language currently listed in Conditions III C 3, III C 4, and IV C 4 be inserted in Conditions IV C 4 and VIII 3 as well. This language allows the stack testing to be vacated provided that Omega submits to us documentation detailing on why a stack test cannot be physically performed and it is approved by us prior to the test protocol submittal. We feel again that this change is administrative in nature and does not trigger public notice procedures because the stack testing frequency has not been reduced. Also, we feel that the 45 day EPA review period would not have to be restarted due to these changes.

I've attached a mark-up of the above conditions so that you can review them. The 45 day EPA review period is scheduled to end on January 6, 2006 and we would understand if you require additional time to review the changes. Please let me know your thoughts on the proposed changes and if we can provide any assistance to you so that we may achieve our goal of issuing this Title V permit. Thank you in advance for your consideration of this matter.

Lisa Childress

40278 Final TV Permit 12-11-06 Revisions.doc

D. Reporting/Notifications

1. The permittee shall submit fuel quality reports pertaining to the Cleaver Brooks boiler (CB-3) to the Director, Piedmont Regional Office and to the EPA, Region III address listed in Condition III D. 2 within 30 days after the end of each quarterly period. If no shipments of oil were received during the quarterly period, the quarterly report shall consist of the dates included in the quarterly period and a statement that no oil was received during the quarterly period. If distillate oil was received during the quarterly period, the reports shall include the following:

   a. Dates included in the quarterly period.

   b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the quarterly period or a quarterly summary from each fuel supplier that includes the information specified in Condition III B. 3 for each shipment of distillate oil.

   c. A signed statement from the owner or operator of the facility that the fuel supplier certifications or summaries of fuel supplier certifications represent all of the distillate oil burned or received at the facility for the Cleaver Brooks boiler (CB-3).
   (9 VAC 5-50-410, 9 VAC 5-80-110, 40 CFR 48c(e)(1), 40 CFR 48c(e)(11), and 40 CFR 48c(j))

2. The permittee shall furnish written notification to the Director, Piedmont Region

of:

~~a. The actual date on which construction of the Cleaver Brooks oil-fired boiler (Reference No. CB 3)(NSPS) commenced within 30 days after such date.~~

~~b.~~a. The anticipated start-up date of the Cleaver Brooks oil-fired boiler (Reference No. 3 CB 3)(NSPS) postmarked not more than 60 days nor less than 30 days prior to such date.

~~c.~~b. The actual start-up date of the Cleaver Brooks oil- fired boiler (Reference No. CB 3)(NSPS) within 15 days after such date.

~~d.~~c. The design heat input capacity of the Cleaver Brooks oil-fired boiler

(Reference No. CB 3)(NSPS) and the identification of fuels to be combusted in it.

Copies of the written notification reference in items a-~~d~~ c. above shall be sent to:

Chief, Air Enforcement Branch (3AP10)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-50-50, 9 VAC 5-50-410, 40 CFR 60.48c(a), 40 CFR 60.48c(a)(1), and Condition 9 of 07/16/04 Permit)

IV. Equipment Requirements – (S1, S2, S3, 1R, 5, & MC1)

A. Limitations

1. Particulate matter (PM) emissions from the fish meal cooler (MC1) shall be controlled by the use of cyclones and scrubbers. The cyclones and scrubbers shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of 6/26/02 Permit)

2. The annual fish meal throughput (based on number of fish) of the fish meal steam dryers (S1, S2, & S3) shall not exceed 950,000,000 fish per year, calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 9 of 6/26/02 Permit)

3. The annual fish meal throughput (based on number of fish) of the fish meal flame dryer (1R) shall not exceed 570,000,000 fish per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   (9 VAC 5-80-110 and Condition 10 of 6/26/02 Permit)

4. The annual fish meal throughput of the fish meal cooler (MC1) shall not exceed 83,600 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.

   (9 VAC 5-80-110 and Condition 11 of 6/26/02 Permit)

4. The permittee shall fill a 5 gallon bucket full of menhaden fish, determine the weight of the menhaden fish in the 5 gallon bucket by weighing the 5 gallon bucket before any menhaden fish are added and weighing the 5 gallon bucket after the menhaden fish are added, and then counting the number of menhaden fish in the bucket after determining the weight of the 5 gallon bucket of menhaden fish.~~weigh an average lot of 1,000 caught menhaden fish on a~~ The permittee shall perform this monitoring on a monthly basis during the operating season (April through December) and shall keep a log of the weight observations which should include the date, time, number of fish, ~~and~~ weight of the fish ~~lot~~ and name of the observer.

   (9 VAC 5-80-110)

5. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:

   a. The combined annual throughput of fish meal (expressed as the number or tons of fish processed) to the fish meal steam dryers, (S1, S2, and S3), calculated monthly as the sum of each consecutive twelve (12) month period.

   b. The annual throughput of fish meal (expressed as the number or tons of fish processed) to the fish meal flame dryer 1R, calculated monthly as the sum of each consecutive twelve (12) month period.

   c. The annual throughput of fish meal (expressed in tons of fish meal) to the fish meal cooler MC, calculated monthly as the sum of each consecutive twelve (12) month period.

d. Records (logs) of the monthly weight observations of the caught menhaden fish as required in Condition IV. B 4.

e. Records of the annual inspections conducted for the cyclones required by Condition IV. B 1 which list the times, dates, results, and any corrective maintenance taken as a result of the inspections.

f. Records (logs) of the once per daily operation observations conducted on the water flow rate as required in Condition IV. B 3 which list the times, dates, results, and any corrective actions taken as a result of these observations.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, Condition 5 of 7/16/04 Permit, and Condition 16 of 6/26/02 Permit)

B. Testing

1. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests for PM/PM10, VOC, and Sulfur Dioxide from emission units S1, S2, S3, 1R, and MC1 as exhausted to Vent Stack 1 and shall conduct performance tests for PM/PM10 for emission unit 5 as exhausted to Vent Stack 1 in order to determine compliance with the emission limits listed in Conditions IV. A. 5 and 6 and to re-derive and re-verify the PM/PM10 and VOC emission factors developed in establishing the PM/PM10 and VOC emission limits in Condition IV. A. 5. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition IV. C. 3 of this section at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

   (9 VAC 5-80-110)

2. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests to verify control efficiency for the cyclone/scrubber (PCD-ID MC1-S1 and MC1-S2) which control particulate

emissions from emission unit MC1. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition IV. C 4 at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.

(9 VAC 5-80-110)

3. As part of each testing protocol required in Condition IV. C. 1, the permittee shall submit target operating rates for each piece of equipment or operation being tested which include hourly fish processing/drying rates. The permittee shall also discuss in each testing protocol which fuels will be burned during each test to maximize emissions for those units that may burn different fuels and fuel oil sulfur content for each fuel. In each testing protocol, the permittee shall also discuss how emission factors for PM/PM10 and VOC will be derived. The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition IV. C 1. Additionally, test reports shall contain documentation showing type and amount of fuel being used during the test, fuel sulfur content, the actual operating rate of each piece of equipment or operation being tested, and the amount of fish being processed for each test run. In the test reports, the permittee shall compare this information to the targeted operating rates and fuels listed in each approved protocol. The testing requirement in Condition IV C 2 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date for the testing protocol.
(9 VAC 5-80-110)

4. As part of each testing protocol required in Condition IV C. 2, the permittee shall submit target operating rates for each piece of equipment or operation being tested which include hourly fish processing rates. In each testing protocol, the permittee shall also discuss how the PM/PM10 control efficiency for the cyclone/scrubber as detailed in Condition IV C. 2 will be derived. The permittee shall make every reasonable effort to maximize air emissions during the testing required in Condition IV C. 2. Additionally, test reports shall contain documentation showing the actual operating rate of each piece of equipment or operation being tested, the amount of fish being processed for each test run, the PM/PM10 inlet concentration to the cyclone (PCD ID MC1-S1), and the PM/PM10 outlet concentration after exiting the scrubber (PCD ID MC1-S2). In the test reports, the permittee shall compare this information to the targeted operating

rates listed in each approved protocol. The testing requirement in Condition IV C 2 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date for the testing protocol.
(9 VAC 5-80-110)

VIII. STATE ONLY ENFORCEABLE REQUIREMENTS

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

1. The fish meal dryers (1R and 5) and the fish meal cooler (MC1) hourly combined hydrogen cyanide (HCN) emissions as exhausted through Vent Stack 1 shall be limited to 1.12 lb(HCN)/hr.
(9 VAC 5-80-110 and 9 VAC 5-60-300(C)(1)(a))

2. Once during the five year term of this permit, and once every five years thereafter, the permittee shall conduct performance tests for hydrogen cyanide (HCN) at the facility in order to determine compliance with the emission limit listed in Condition VIII 1. These tests shall take place within 18 months of initial issuance of this Title V permit, and the emission units shall be operating at a minimum of 80% of maximum rated capacity. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30, and the test methods and procedures contained in each applicable section and 9 VAC 5-60-70. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol as detailed in Condition 6 of this section at least 60 days prior to testing. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110)

3. As part of each testing protocol required in Condition VIII 2, the permittee shall submit target operating rates for each piece of fish processing/drying equipment or operation. In each testing protocol, the permittee shall also discuss which emission units will be operated during the HCN testing . The permittee shall make

every reasonable effort to maximize air emissions during the testing required in Condition VIII 2. Additionally, test reports shall contain documentation showing the amount of fish being processed for each test run, the concentration of HCN for emission units 1R and 5 before any fish are processed, the concentration of HCN for emission units 1R and 5 after fish processing, but prior to entry to the respective cyclones/scrubbers, and the outlet concentration of HCN after exiting the respective cyclones/scrubbers. In the test reports, the permittee shall compare this information to the targeted operating rates listed in each approved protocol. The testing requirement in Condition IV C 2 will become invalidated if the permittee submits supporting documentation detailing why testing cannot be physically conducted and it is approved by the Piedmont Regional Office 120 days prior to the required submittal date for the testing protocol.

(9 VAC 5-80-110)